

IN THE SPECIFICATION

Please cancel paragraphs 003, 006, 008, 009, 011, 012, 013, 018, 020 and 030.
Please replace those cancelled paragraphs with replacement paragraphs, also 003,
006, 008, 009, 011, 012, 013, 018, 020 and 030, as follows:

[003] A device for fastening a dressing on a printing group cylinder is known from DE 196 11 642 C2. A prefabricated strip is placed into a groove that is formed in the surface area of the cylinder and is welded together with it at joining surfaces which are facing each other in the circumferential direction of the cylinder. The strip completely fills the groove. Bores ~~for conducting~~ ~~for conducting~~ suction air, and a slit-shaped bracing pit for holding a dressing arranged on an angled-off end are embodied in the strip.

[006] The advantages which can be gained by the present invention consist, in particular, in that, for forming a bracing channel or a flow channel, it is possible to cut a groove into the surface of the barrel of the base body, for example by milling, which is a cost-effective method for the desired production. Expensive deep hole drilling is not necessary. A profiled body which is covering and delimiting the bracing channel or the flow channel toward the shell face or the surface of the base body, is introduced into the groove and is connected with the barrel or with the base body by being incorporated into the material. Electron beam welding or laser welding, which methods are preferred for making the connection, permit heating the barrel or the base body in a locally very

narrowly limited welding zone. The barrel of or the base body thus remains free of tension and free of warping in spite of the introduction of heat. Furthermore, fastening of the profiled body on the barrel or on the base body by the use of screws or similar connecting elements can be avoided. Sealing of the heads of these fastening elements in the bracing channel or in the flow channel, as well as sealing of a passage hole in the profiled body for the attachment of such connecting elements, can also be avoided. It is also advantageous in connection with the present invention that a barrel or a base body, which may be made of a less corrosion-resistant material, can be protected against corrosion by welding a cover, which cover is, for example, plate-shaped, and which may be made of a more corrosion-resistant material, onto it. In the same way, the shell face of the barrel or the surface of the base body can also be configured to be more wear-resistant. By their advantageous placement in the barrel or base body, the flow channels make possible an efficient temperature control.

[008] Shown are, each in partial cross-section, in:

Fig. 1, a profiled body introduced into a barrel of a rotating body, and with a bracing channel extending in it[[, in]];

Fig. 2, a rotating body with a profiled body welded to the barrel[[, in]];

Fig. 3, a rotating body with a profiled body welded to the barrel and with a protective layer applied to the barrel[[, in]];

Fig. 4, a rotating body with a cover applied to the base body[[, in]];

Fig. 5, a rotating body with a cover applied to the base body, and with flow channels also formed in the base body in addition to the bracing channel, and in:

Fig. 6, a perspective plan view, partly in cross-section, of a rotating body, with flow channels formed in the barrel or in the base body, and where the flow channels and the bracing channel are each covered by a profiled body on the shell face of the barrel, or on the surface of the base body.

[009] Referring initially to Fig. 1, there may be seen generally at 01 a rotating body, such as a cylinder of a rotary printing press, in accordance with the present invention. If, for example, the rotating body 01 is configured as a forme cylinder 01 or as a transfer cylinder 01 of a printing group, this cylinder 01 can be covered, in the direction of its circumference [[U,]] with, for example, one dressing 03 or two dressings 03, and axially, over its length, with, for example, up to six dressings 03. In connection with the use of body 01 as a forme cylinder 01, the dressings 03 are typically embodied as plate-shaped printing formes 03. If the rotating body 01 is a transfer cylinder 01, the dressings 03 are preferably rubber printing blankets 03, which are applied to a support plate. As a rule, a plate-shaped printing forme 03, or a support plate for a rubber printing blanket is made of a flexible, but otherwise dimensionally-stable material, such as, for example an aluminum alloy.

[011] A partial cross-section of a barrel 02 of the rotating body 01 is represented in Fig. 1, and in which a bracing or securement channel 06 extends in the axial direction of the barrel 02. The bracing or securement channel 06 is delimited, at least in the direction

of a shell face 07 of the barrel 02, by at least one profiled body 04 that is introduced into the barrel 02. A dressing 03, such as, for example, a flexible plate-shaped printing forme 03, is fastened on the shell face 07 of the barrel 02. Angled or beveled end legs 08, 09, which are formed at the ends of the dressing 03, are introduced into the bracing or securement channel 06, which has an opening 11 that is directed toward the shell face 07 of the barrel 02. These end legs 08, 09 are then there substantially placed against walls 12, 13 of the opening 11 which walls 12, 13 are situated close to the shell face. In this case, the bracing or securement channel 06 can have various cross-sectional geometric shapes without departing from the spirit and scope of the present invention.

[012] Without limiting the present invention to the following simplified representation, the description of the present invention is provided here, for the sake of simplicity, in such a way as if only a single dressing 03 extending around ~~extending around~~ the barrel 02 were to be fastened on the barrel 02 of the rotating body or cylinder 01. For one of skill in the art, it is easily understandable that several such dressings 03 could be fastened on the barrel 02 in its axial direction, as well as in its circumferential direction. In the case of several such dressings 03 positioned on the barrel 02, in the circumferential direction of the rotating body on cylinder 01, several bracing channels 06 would also have to be provided.

[013] Viewed in the production direction P of the rotating body 01, as seen in Fig. 1, the dressing 03 to be fastened on the barrel 02 has a leading end 16 and a trailing end 17, with respective beveled off or angled end legs 08, 09. As also ~~Also~~ viewed in the

production direction P of the rotating body 01, the opening 11 of the bracing or securement channel 06 has a front edge 18, from which a wall 12 extends in the direction toward the bracing or securement channel 06, as well as a rear edge 19, from which a wall 13 also extends in the direction toward the bracing channel 06. The opening 11 is configured being axially elongated and circumferentially narrow, and is therefore slit-shaped, in the shell face 07 of the barrel 02, wherein a slit width "S" of the opening 11 is short in comparison with a depth "t" of the bracing channel 06, which depth "t" can be, for example, 28 mm to 35 mm, and which preferably is 30 mm, and which depth "t" is dimensioned in such a way that a leg 08 at the leading end 16 of a dressing 03, and a leg 09 at the trailing end 17 of the same dressing 03 or, in the situation with ~~situation with~~ several dressings 03 fastened in the circumferential direction of the rotating body 01, or a leg of an identical dressing 03, can be arranged in the opening 11 with the dressings situated circumferentially one behind the other. Slit widths "S" of less than 5 mm, and preferably in the range of 1 mm to 3 mm, are advantageous. Therefore, the ratio of the depth "t" of the bracing or securement channel 06 to the slit width "S" preferably is approximately between 1:10 and 1:15. The opening 11 can extend completely, or only partially, over the axial length of the barrel 02.

[018] In a first embodiment of the present invention, as represented in Fig. 2, for producing the rotating body 01, at least one profiled body 04 is inserted into the barrel 02 of the rotating body or cylinder 01 in such a way that the profiled body 04 spatially delimits or defines a bracing or securement channel 06 at least on the shell face 07.

The introduction and retention of the profiled body 04 into the barrel 02 is preferably provided by material-to-material contact, and in particular is provided by a welding process, such as, for example, ~~by electron~~ by electron beam welding or by laser welding. As an alternative to a welding method, it would also be possible to apply hard soldering in a vacuum, wherein a soldering paste applied to the joining surface is spread as a result of capillary action and, in the end, results in a very solid soldered connecting, even under shearing stress, if the complete rotating body 01 is heated in a vacuum. Independently of the connecting techniques being used in the discussion which follows, for introducing the profiled body 04 into the rotating body 01, advantageously the profiled body 04 is inserted into a groove or channel 31 preferably ~~31 preferably~~ machined into the shell face 07 of the barrel 02. If the profiled body 04 is embodied in a block shape, a width W31 of the groove or channel 31 and a width of the profiled body 04 are matched to each other, preferably in a manner that will provide clearance fit or a transition fit, so that they are joined easily. The profiled body 04 extending in the axial direction of the rotating body 01 preferably has a strip-like shape and can be embodied in one piece or in several pieces. As illustrated in Figs. 2 and 3, it is not absolutely necessary, for example, that the profiled body 04 include a portion which forms a bottom in the bracing or securement channel 06. As an alternative to the provision of a profiled body 04 as a molded piece, the profiled body 04 can be formed on or near the shell face 07 of the barrel 02, in a welding-on process, by the application of a material. A corrosion-resistant special steel is particularly suitable for use as the material usable for forming a profiled body 04 which is produced by welding techniques. The holding member 22, which is arranged in the bracing or securement

channel 06, the spring 26 and the actuating element 27, are no longer represented in Fig. 2 and the subsequent drawing figures for reasons of clarity. Reference is made to Fig. 1 for details of the structure of these elements. The width W31 of the groove 31 can be, for example, from 10 mm to 50 mm, and will preferably lie between 12 mm and 30 mm, at least at the shell face 07.

[020] Welding zones 32, which have only a very narrow width in the direction of the circumference of the barrel 02, but which project into the barrel 02 over a large portion of the structural depth of the profiled body 04, are, for example, located at a lateral joining surfaces formed between the profiled body 04 inserted into the groove 31 and the barrel 02. By bundling the radiation which is emitted by the respective energy sources of the electron beam welding or laser beam welding processes, these suggested welding processes make possible a tightly controlled, locally limited heating of the barrel 02 with a large depth effect. Thus, with electron beam welding, the width of each welding zone 32 is, of, for example, 1 mm, in connection with a welding depth of 5 mm directed into the barrel 02, is of, for example, 2 mm in connection with a welding depth of 20 mm, and is of, for example, 3 mm in connection with a welding depth of 40 mm. With laser welding, the welding zones 32 are somewhat wider, so that the width and depth of each welding zone 32 have a ratio of approximately 1:5. For the application contemplated here, welding depths of 15 mm to 20 mm could be sufficient. The maximally required depth, for example, lies at 50 mm.

[030] Fig. 6 shows a portion of the rotating body 01 in a perspective plan view. At least one bracing or securement channel 06, as well as several, preferably equidistantly

spaced flow channels 37, provided, for example, in the form of rectangular grooves, have been formed extending axially with respect to the length of the rotating body 01 in the surface 07, 29 of its barrel 02 or base body 28. The bracing or securement channel 06, and the flow channels 37 on the surface 07, 29 of the barrel 02 or on the base body 28 are each covered by a profiled body 04, which is preferably configured in the form of a strip. For the sake of clarity, only a portion of the flow channel 37 has been covered in Fig. 6. Each profiled body 04, whose structural depth is less than the depth of the respective groove that is extending substantially radially into the barrel 02 or the base body 28, is preferably inserted, with a positive connection, into each one of the grooves and is connected in a material- to-material way, such as, in particular by the employment of the electron beam welding method, with the barrel 02 or the base body 28. In the operational state of the rotating body 01, a heat-carrying medium flows through the grooves, which have been embodied as flow channels 37, and which flow channels 37 are hermetically closed toward the surface 07, 29 of the barrel 07 or the base body 28 by the profiled body 04 24, while the bracing channel 06 is equipped with a holding device as shown by way of example in Fig. 1 and which is provided, at least in part, with a slit-shaped opening 11, that is not specifically represented, toward the opening 07, 29 of the barrel 02 or of the base body 28, produced, for example, by a milling process. At least some of the flow channels 37 are connected with each other, preferably close to an end face of the rotating body 01, for example by an annular groove 43 which is formed on the circumference of the barrel 02 or of the base body 28., This groove 43 is also hermetically sealed, preferably by an annular profiled body 04, toward the surface 07, 29 of the barrel 02 or of the base body 28. This annular

profiled body 04 is preferably configured in the shape of a cylinder ring, or a shell, or as ring segments. One or several radial bores 44 can terminate, as the inflow or at the outflow of the heat-carrying medium, in this groove 43 which may be formed on the circumference of the barrel 02 or the base body 28.